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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 09/720,475 | 03/08/2001 | Kazuyuki Nako | 55338 868 | 2443 |
| 21874 | 7590 | 03/18/2005 | EXAMINER | |
| EDWARDS & ANGELL, LLP | | | CARTER, TIA A | |
| P.O. BOX 55874 | | | ART UNIT | |
| BOSTON, MA 02205 | | | PAPER NUMBER | |

2626

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,475

Applicant(s)

NAKO ET AL

Examiner

Tia A Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-13-2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-16, drawn to analysis of color image and the mixing ratio thereof, classified in class 358, subclass 518.

Group 2, claim(s) 17-27, drawn to image region extraction thereof classified in class 382, subclass 173.

Group 3, claim(s) 28-29, 33, 36, drawn to positions of image documents thereof, classified in class 358, subclass 1.12.

Group 4, claim(s) 30-32, 34-35, 37-38, drawn to edge detection and image segmenting thereof, classified in class 382, subclass 199 and class 358, subclass 462.

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Group 5, claim(s) 39-46, drawn to image data alignment thereof classified in class 382, subclass 294.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Groups 1-5 are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention in regards to **Group 1** discloses an image processing apparatus performing color analysis and color mixing ratio calculations. The subcombination has separate utility such that **Group 2** teaches character/line drawing extraction from a supplied image data source. The subcombination has separate utility such that **Group 3** teaches image data position detection via front or back and image correction using positional relationship between front and back of the supplied image. The subcombination has separate utility such that **Group 4** teaches edge detection and image data correction based on the edge and brightness pixels of supplied image data. The subcombination has separate utility such that **Group 5** teaches aligning images of consecutive pages.

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3. Inventions Groups 2-5 are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention in regards to **Group 2** teaches character/line drawing extraction from a supplied image data source. The subcombination has separate utility such that **Group 3** teaches image data position detection via front or back and image correction using positional relationship between front and back of the supplied image. The subcombination has separate utility such that **Group 4** teaches edge detection and image data correction based on the edge and brightness pixels of supplied image data. The subcombination has separate utility such that **Group 5** teaches aligning images of consecutive pages.

4. Inventions Groups 3-5 are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention in regards to **Group 3** teaches image data position detection via front or back and image correction using positional relationship between front and back of the supplied

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image. The subcombination has separate utility such that **Group 4** teaches edge detection and image data correction based on the edge and brightness pixels of supplied image data. The subcombination has separate utility such that **Group 5** teaches aligning images of consecutive pages.

5. Inventions Groups 4-5 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention in regards to **Group 4** teaches edge detection and image data correction based on the edge and brightness pixels of supplied image data. The subcombination has separate utility such that **Group 5** teaches aligning images of consecutive pages.

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, Group III, Group IV or Group V, restriction for examination purposes as indicated is proper.

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7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tia A Carter

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Examiner
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TAC
3/10/2005



**KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER**